

CLASS SPECIFICATION
County of Fairfax, Virginia

CLASS CODE: 4234

TITLE: FIRE TECHNICIAN

GRADE: F-19

DEFINITION:

Performs technical duties in a distinct functional area in the Fire and Rescue Department and related work as required. Specific assignments include: apparatus, emergency medical services, Hazardous Materials Response Team, Technical Rescue Operations Team, fire protection equipment and systems testing, inspections, investigations, training, and supply and equipment.

DISTINGUISHING CHARACTERISTICS OF THE CLASS:

Employees in this class perform technical duties in a distinct functional area. Instructions and guidance are furnished with non-routine situations or conditions; however, employees at this level normally exercise initiative and independent judgment. Fire Technicians assigned to Fire Suppression differ from Firefighters in that Fire Technicians operate firefighting equipment and perform firefighting duties as lead workers. Fire Technicians assigned to Emergency Medical Services may be assigned to a paramedic fire engine as the advanced life support provider, driver of an advanced life support unit, or as the crew leader on a basic life support unit. Regardless of area of assignment, all uniformed fire and rescue personnel that are medically qualified for field duties as a firefighter must maintain a level of fitness sufficient to enable them to participate in fire suppression and rescue activities when the need arises, as demonstrated by successful completion of a work performance test (unless granted light duty due to illness or injury).

ILLUSTRATIVE DUTIES:

Apparatus Technician

Drives a pumper, ladder truck, tiller or rescue squad to/from alarms;
Operates a pumper at draft or fire hydrant;
Operates a specialized unit, such as a boat, hazardous materials unit, or technical rescue unit;
Inspects vehicles and mechanical equipment to ensure that they are working properly, and reports malfunctions to supervisor;
Performs routine maintenance on vehicles and equipment;
Trains Firefighters in the safe and efficient operation and maintenance of firefighting and rescue apparatus;
Coordinates and oversees work details at the station or at incidents;
Participates in firefighting, rescue, and emergency medical duties.

Emergency Medical Services Technician – Advanced Life Support (ALS) Provider

As an ALS provider on an Advanced Life Support Unit (ALSU) or Paramedic Engine, provides advanced emergency medical care to stabilize the condition of the critically ill/injured prior to and during transport to a medical facility;
Administers advanced emergency medical procedures (e.g., creating airways, interpreting and treating cardiac arrhythmias, performing defibrillation, electronic pacing, cardioversion, and/or electro-cardiographic monitoring);

Determines the nature and extent of injury or illness, establishes priorities for required emergency care, and determines if Advanced Life Support Care or medivac is needed;
Drives the BLSU or ALSU to and from emergencies;
Conducts primary and secondary patient survey;
Collects pertinent information for patient assessment, including the patient's past and present medical history and transfers this information to appropriate medical personnel;
Takes vital signs and stabilizes patient;
Conducts assessment to determine treatment of a patient with suspected respiratory, cardiovascular, or central nervous system disorder, and begins treatment;
Determines subsequent treatment based on patient reactions, responses and conditions;
Performs cardiopulmonary resuscitation;
Carries out emergency childbirth procedures;
Treats trauma-induced injuries, and assists with the treatment of medical emergencies (e.g., drug overdoses, seizures, diabetic reactions);
Notifies authorities of suspicion of child and elder abuse;
Operates the mobile display terminal (MDT) system;
On the station computer, enters information from written reports into the Department reporting system;
Prepares and presents in-station drills;
Participates in firefighting and rescue duties.

Hazardous Materials Response Team

Responds to accidental and intentional releases of hazardous materials;
Detects the presence of hazardous materials using specialized electronic instruments and product testing materials;
Identifies the hazardous material's chemical and physical properties by using reference books, computerized databases, and information retrieved from industry experts;
Develops a hazardous materials incident site characterization diagram, to include topography, location of sewers and storm drains, exposures, natural bodies of water, and location of hazardous materials;
Develops a technical site safety action plan, to include work zones, evacuation plans, "hot zone" action levels, and other emergency procedures for all site workers;
Obtains gas, liquid, or soil samples to evaluate hazardous material concentrations;
Performs damming or diking procedures to stop the spread of hazardous material;
Performs decontamination procedures on citizens, departmental personnel, tools, and equipment;
Oversees/directs off-loading procedures when products are transferred from container to Container;
Tests meters and equipment, and ensures sufficient haz-mat supplies are on hand;
Conducts target hazard preplanning and walk-through of buildings known to contain hazardous material to become familiar with the layout;
Conducts, develops, and participates in hazardous materials response team training;
Participates in firefighting, rescue, and emergency medical duties.

Technical Rescue Operations Team

Participates in underground rescues;

Stabilizes and works in building collapses, trench cave-ins, and high-angle, below-grade and confined-space rescue situations;

Shores, and makes safe, a trench or collapsed building, and establishes a safety zone around the trench/building collapse to prevent further collapse;

Prepares, inspects and utilizes a variety of rope systems for ascending, descending and hauling tools, equipment and people.

Evaluates the dangers of a confined space, safely entering into and egressing from confined spaces using personal protective clothing, gear, and breathing equipment;

Searches for victims, evaluates victim's condition, prepares victims for removal, extricates victims, and provides basic life support;

Operates hand tools, power tools, and dewatering devices;

Ventilates a trench or confined space prior to rescue;

Excavates trenches and breeches/tunnels through structures;

Protects victims and self from utility equipment;

Develops, conducts or participates in training in all aspects of technical rescue operations;

Participates in firefighting, rescue, and emergency medical duties.

Fire Protection Equipment and Systems Testing Section

Inspects commercial buildings and facilities under construction to ensure that the components of their fire protection water system (e.g., main water line, standpipes, sprinklers, pump) are properly installed and comply with all applicable fire and life safety codes/standards, and that their fire protection equipment (e.g., smoke detectors, fire alarms, stairwell pressurization, smoke evacuation systems) operate properly;

Witnesses performance tests on fire protection equipment/systems conducted by the installing contractor;

Prepares reports on the status, test results, etc. of the fire protection equipment and systems inspected at each job site, issues Notices of Violation and summonses, and secures warrants as required by law;

When more than one agency has enforcement jurisdiction over identified code violations, coordinates actions with inspectors or code enforcement personnel from other agencies (e.g., Department of Environmental Management, Health Department) to resolve deficiencies;

Keeps abreast of changes in code requirements, new systems technology, and other related fire protection matters;

Attends recertification training;

Answers inquiries from contractors, developers or owners regarding fire protection equipment and system requirements, as well as installation deficiencies;

Investigates, and assists in troubleshooting, problems in fire protection equipment and systems in existing buildings.

Inspections Section

Inspects buildings and facilities to ensure compliance with the Virginia Statewide Fire Prevention Code and Fairfax County Fire Prevention Codes;

Serves as technical assistant to the Fairfax County Building Official in the enforcement of the Virginia Petroleum Storage Tank Regulations and aspects of the Uniform Statewide Building Code affecting life safety and fire protection prior to occupancy of the building or structure; Prepares reports of inspection, issues Notices of Violation and summonses, and secures warrants as required by law;

Receives and responds to telephone calls, inquiries and requests for information from the public, business community and other government agencies regarding fire prevention regulations and fire safety;

Coordinates inspections and code enforcement actions with other government agencies;

Attends mandated recertification training and keeps abreast of technical developments with the fire protection and fire prevention industries.

Investigations Section

Investigates/determines the origin and cause of fires and explosions;

Interviews witnesses and examines incident scenes for evidence as to the cause;

May assist in other types of investigations (false alarms, hazardous materials incidents);

Works closely with local, state and federal law enforcement agencies in investigative functions;

Prepares reports on the results of the investigation and actions taken;

Prepares, obtains and executes search and seizure/arrest warrants;

Keeps abreast of federal, state and local statutes and ordinances pertaining to criminal investigations;

Assists the Commonwealth's Attorney with the preparation of cases being prosecuted in court, and testifies in court.

Training Section

As an instructor in the Fire and Rescue Academy, trains career and volunteer firefighters in a variety of areas, including forcible entry, hose placement, ventilation techniques, search and rescue methods, the use of tools/ropes/knots/breathing apparatus, the care and maintenance of fire and rescue equipment, and emergency medical treatment and transportation procedures;

Determines the training objectives, develops training programs, and utilizes educational principles to facilitate program enhancement;

Tests students to determine the skills attained;

Recommends remedial training;

Oversees practical evolutions.

Supply and Equipment Branch

Coordinates the activities of the Supply and Equipment Branch, which includes the Fire Warehouse and the Fire and Rescue Department's delivery truck;

Repairs fire, rescue, and emergency medical equipment (e.g., fire hose, nozzles, oxygen, breathing apparatus, stretchers);

Coordinates special equipment repairs with outside vendors, other County agencies, and departmental staff;

Evaluates items turned in by fire stations as to serviceability and need, using a current

knowledge of standards set by the Occupational Safety and Health Act (OSHA), the American National Standards Institute (ANSI), and the National Fire Protection Association (NFPA) for fire/rescue/emergency medical equipment and supplies;

Performs a technical review of incoming equipment/supply shipments to ensure they meet OSHA, ANSI, NFPA, and departmental standards;

Responds to emergencies to address special supply/equipment needs;

Reviews outgoing transfer vouchers, supply requests and repair requests for accuracy.

In all functional areas

Performs housekeeping tasks at fire stations and on their grounds;

Maintains records as necessary, and completes incident reports;

Attends training sessions and participates in drills;

Participates in the physical fitness program.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**In all functional areas**

Knowledge of laws, regulations, departmental policies and procedures, standard operating procedures, training manuals and safety bulletins covering the area to which assigned;

Knowledge of streets and target hazards in assigned area;

Knowledge of appropriate types of safety gear and procedures, and the ability to use them correctly;

Knowledge of the principles and practices of fire suppression;

Knowledge of firefighting equipment and supplies;

Knowledge of the principles and practices of fire prevention, the Virginia and Fairfax County Fire Prevention Codes, other codes pertaining to fire prevention or life safety, and compliance methods;

Ability to perform basic life support techniques, including cardiopulmonary resuscitation on infants, children, and adults;

Ability to remain calm under stress;

Ability to use sound judgment in making independent decisions;

Ability to communicate orally in an effective manner;

Ability to maintain effective working relationships with coworkers, volunteers, and the public;

Ability to follow written and oral instructions;

Ability to coordinate or lead the work of coworkers, the public, and other workers (such as utility workers) responding to the scene;

Ability to write complete, concise, and accurate reports;

Ability to train others in an area of specialization;

Ability to analyze situations and, giving due regard to the circumstances, adopt an effective course of action which follows accepted practices.

Apparatus Technician

Ability to safely drive a pumper, ladder truck, rescue squad, tanker, or other Fire and Rescue Department vehicle in all weather conditions and in other hazardous situations;

Ability to train others in all aspects of the apparatus to which assigned;

Ability to identify the various types of hose loads and racks, deploy all hose lines carried on the apparatus, and recognize defective hoses;

Ability to supply water from static and residual water sources and maintain proper pressure to supply attack lines, supply lines, master stream devices, foam devices, relay operations, shuttle operations, and fire protection systems;

Ability to operate the aerial device.

Emergency Medical Services Technician – ALS Provider

Knowledge of advanced emergency medical procedures, techniques, drugs, and equipment related to emergency treatment of life-threatening illnesses and injuries, familiarity with when they should be used, and the ability to apply them appropriately;

Knowledge of Basic Life Support techniques;

Knowledge of the anatomy and physiology of the major systems of the body;

Knowledge of the principles of triage, and the ability to apply them in multiple casualty incidents;

Knowledge of the causes, signs, symptoms and treatment of shock, dehydration, and overhydration;

Ability to effectively rescue injured persons from hazardous situations;

Ability to comprehend medical terminology and follow complex instructions relayed by a physician;

Ability to accurately assess and monitor a patient's condition;

Ability to perform cardiopulmonary resuscitation on infants, children, and adults;

Hazardous Materials Response Team

Knowledge of soil conditions;

Knowledge of what type of leak control and containment device can be used for a given type of leaking container and given type of hazardous material;

Knowledge of natural drainage, sanitary, and storm water management systems, and the procedures used to handle haz-mat incidents in each;

Knowledge of basic chemistry, such as the characteristics of acids, bases, and gases;

Knowledge of sources from which to obtain authoritative information about hazardous material;

Ability to effectively rescue injured persons from hazardous situations;

Ability to read and interpret chemical data information reference materials.

Technical Rescue Operations Team

Knowledge of the basic rules of physics (e.g., the laws of force, resistance, action-reaction, use of a fulcrum point on a lever, cause and effect of physical motion, and momentum);

Knowledge of different types of anchors and multi-anchor systems, and the ability to use them properly;

Knowledge of different rope systems (e.g., hauling, lowering and repelling systems), and the ability to use them properly;

Knowledge of building construction, construction materials, structural terminology and support systems;

Knowledge of search and rescue techniques, including tunneling, breaching, and penetrating;

Knowledge of different types of structural collapses (e.g., pancake, V, and lean-to collapses);

Knowledge of shoring and supplemental shoring procedures;
Ability to effectively rescue injured persons from hazardous situations;
Ability to read diagrams and blueprints sufficiently to effect a rescue.

Fire Protection Equipment and Systems Testing Section

Knowledge of fire protection equipment and systems;
Knowledge of basic building construction practices;
Ability to prepare concise and accurate legal notices and reports of inspection;
Ability to conduct fire safety inspections in public buildings to ensure code compliance;
Ability to read building plans to determine compliance with the Fire Prevention codes and other pertinent codes;
Ability to effectively apply appropriate codes and standards.

Inspections Section

Knowledge of basic building construction practices;
Ability to read blueprints;
Ability to conduct inspections of buildings and facilities to ensure code compliance;
Ability to prepare concise, accurate legal notices and reports of inspection;
Ability to effectively apply appropriate codes and standards.

Investigations Section

Knowledge of investigatory practices and techniques;
Knowledge of local, state and federal statutes;
Knowledge of the judicial system;
Ability to properly process arrestee into the judicial system;
Ability to use a firearm;
Ability to recognize and gather evidence pertaining to the origin and cause of fires, explosions, and other incidents;
Ability to effectively testify in court.

Training Section

Knowledge of instructional techniques/methods, and the ability to apply them effectively.

Supply and Equipment Branch

Knowledge of OSHA, ANSI, and NFPA standards for fire, rescue, and emergency medical equipment and supplies;
Ability to repair fire, rescue, and emergency medical equipment to meet prescribed standards.

EMPLOYMENT STANDARDS:

Any combination of education, experience, and training equivalent to:
High school graduation or a G.E.D. issued by a state department of education;
Successful completion of the post-recruit school probationary period;
Two years of paid field experience, following graduation from recruit school, as a Fairfax County Firefighter, AND Refer to the Fairfax County Fire & Rescue Department's Career Development Handbook for an explanation of the promotional criteria that will be used for this

rank. Possession of a Class A medical rating in the assigned medical group. Accommodations will be considered on a case-by-case basis.

Current Fire Technicians wishing to move from Suppression to EMS, or vice versa, may do so by taking the Fire Technician promotional examination in the opposite specialty field.

Employees successfully completing the examination in the opposite specialty field will be placed on the appropriate eligibility list and selected for transfer in accordance with the standard practice.

CERTIFICATES AND LICENSES REQUIRED:

Current certification as a Commonwealth of Virginia Emergency Medical Technician (EMT-A or EMT-B);

Certification as a Hazardous Materials First Responder in accordance with Fairfax County training standards;

Certification in cardiopulmonary resuscitation (CPR) and automatic electronic defibrillation (AED); AND

Possession of a valid Motor Vehicle Driver's License.

Emergency Medical Services Technician – ALS Provider

Certified as an Advance Life Support Provider at National Registry Emergency Medical Technician/I (EMT-I) or National Registry Emergency Technician/P (EMT-P) OR as a Commonwealth of Virginia EMT-I or EMT-P;

Certification as a full Advanced Life Support provider (Status A, B or C) in Fairfax County and in full accordance with all current County training standards;

Certification in Advanced Cardiac Life Support; AND

Certification in Basic Trauma Life Support.

Apparatus Technician

Certification as an apparatus technician in accordance with departmental training standards.

Hazardous Materials Response Team

Certification in hazardous materials, in accordance with departmental training standards

Technical Rescue Operations Team

Certification in technical rescue operations, in accordance with departmental training standards.

Position, based on the availability of the training:**If assigned to the Fire Prevention Division:**

Certification as a Fire Inspector II in accordance with the standards of the Virginia Department of Fire Programs;

Certification as a Technical Assistant to the Fire Official in accordance with the standards of the Virginia Department of Housing and Community Development.

Investigations Section

Certification as a Fire Investigator II in accordance with the standards of the Virginia Department of Fire Programs;

Certification in basic law enforcement in accordance with the standards of the Virginia

Department of Criminal Justice Services;
Semi-annual weapons qualification.

Hazardous Materials Enforcement Branch

Certification as a Fire Investigator II in accordance with the standards of the Virginia
Department of Fire Programs;
Certification in basic law enforcement in accordance with the standards of the Virginia
Department of Criminal Justice Services;
Certification in blasting and explosives enforcement;
Certification as a hazardous materials technician in accordance with Fairfax County training
standards;
Certification in hazardous material sampling and air sampling, in accordance with
Environmental Protection Agency training standards;
Semi-annual weapons qualification.

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